Changes and Challenges of News Communication in the Digital Age

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Abstract: Rapidly developing Internet technology has given rise to new ways of presenting and disseminating information, catering to the audience's mobile, fragmented reading habits of the audience, bringing a great impact on traditional media. Traditional media are facing an urgent transformation, looking for a new way out under the new communication environment. How to recognize the audience in the digital era and understand the audience's way of using media will be a kind of exploration, a kind of change and a kind of development for traditional media. This paper summarizes the current situation of news dissemination in the digital era by conducting a questionnaire survey on readers who have watched CCTV news or People's Daily and other news. Finally, it puts forward positive suggestions and optimization paths from different dimensions, such as improving content quality, innovating product forms, establishing two-way interaction, strengthening technical support and talent training. The article aims to explore feasible paths for the transformation of traditional media in the digital era.

Keywords: News Communication, Digital Era, Transformation

1. INTRODUCTION

News is a true and timely report on the newly occurred facts, which is produced due to people's mutual contact and communication in social production and labor practice, and it is an important social phenomenon prevalent in human society, which is closely connected with people's daily life (Kalogeropoulos, 2018; Vettehen et al., 2019). Along with the continuous development of the socialist market economy, high technology is gradually integrated into people's lives, which greatly improves people's living standards and makes people's production and life undergo significant changes. As an indispensable and important part of modern people's life, news communication, along with the development of the times, has also undergone a radical and big change in its communication content, speed and mode (Gong, 2023; Lai, 2023). Especially in recent years, new high-tech products such as mobile communication, Internet and cloud

computing have emerged, giving rise to communication styles such as data news, short videos, live broadcasting, VR/AR immersive news, etc. The speed of updating and accumulating data is unprecedented, and the rapidly exploding amount of data has pushed human society into the digital age (Yao, 2023). Most of the media in the digital era utilize the Internet as a medium and rely on high technology to develop a type of media (Monahan & Ettinger, 2018). Through the Internet, these media are able to publish news and related information in the same way as traditional media (Zeng & Li, 2022; Zhang, 2023). The traditional media industry in the face of new technology, although the innovation pain is unstoppable, but the use of new technology has become an important factor in whether it can stand in the forest of the media industry does not fall (Gu, 2022; Wu, 2022). China's media industry is faced with the impact of new technology, in the long run, accept the new technology is sooner or later, but in the process of transition to new technology (Liu & Zhou, 2022; Sun, 2021). Undoubtedly, it will be held back by various interest forces. Media managers focus on the long-term development of the media industry, in the formulation of strategies, only soberly sort out the power and resistance of the application of new technologies in the media industry in order to promote the media industry in the technology of a smooth outlook for the future through the development of more targeted policies (Zhang, 2022).(Powers & Zhao, 2018) This paper analyzes the development of news communication in the digital era, hoping to promote the research on the change of news communication mode in the era of big data.

2. RESEARCH DESIGN

2.1 Research Objects

The research object of this paper is users who have watched CCTV news or People's Daily and other news.In May-June 2023, the author conducted a questionnaire research in Beijing.

2.2 Research Methods

A questionnaire was used, which included the basic personal information of the respondents as well as their acceptance of and satisfaction with mainstream media news. The research object of this paper is the users who have watched news such as CCTV news or People's Daily. The questionnaire designed in this paper has three dimensions. The first dimension is background information, based on demographic analysis, the

survey respondents' gender, age, education and occupation and other characteristics of the observation sample, the second dimension is based on a 5-point Likert scale to investigate the respondents' satisfaction with mainstream media news and its influencing factors, the willingness to interact, and the third dimension is the survey of respondents' expectations of the news dissemination, which is mainly based on the readers' point of view to discover the readers' psychological expectations of the mainstream media. news psychological expectations. This paper constitutes a questionnaire based on the above three dimensions. A total of 1,429 questionnaires were distributed in this study, and a total of 1,176 valid questionnaires were obtained for research and analysis. In this study, the samples participating in this questionnaire survey were analyzed for the reliability of the questionnaire by using SPSS data analysis system, and the final result of the questionnaire reliability of this study is 0.902,which represents that this questionnaire survey has a high degree of credibility. According to the results of KMO and Bartlett's test, it can be seen that the KMO value of the questionnaire is 0.878, which is greater than the minimum standard of 0.5, which means that the sample can be used for the next step of the factor analysis. the Bartlett's value is 0.000, which is less than 0.05, so it can be considered that this questionnaire has a high structural validity.

2.3 Basic Information on the Questionnaire

In the composition of the valid survey females are higher than males, the male composition of the sample is 48.38%, totaling 569 people, and the female composition is 51.62%, totaling 607 people. The respondents who participated in this questionnaire survey were mainly young people aged 18-25 years old, which accounted for 50.94% of the total sample, 17% of the respondents under 20 years old, and 20.15% of the respondents aged 26-35 years old, totaling 1027 people. Among the respondents of this questionnaire survey, the overall education level is relatively high, with bachelor's degree accounting for 52.89%, and postgraduate and above accounting for 14.46%, accounting for more than 60% of the total number of respondents. College degree accounted for 23.98%, and only 8.67% were below high school and junior college. In the composition of the respondents, to school students, enterprise employees, professional and technical personnel of institutions and managers, accounting for 41.67%, 15.22%, 13.01%, media PR advertising and civil servants accounted for 7.48%, accounting for a smaller number of teachers and individual traders, accounting for 5.95%, 5.27%, in addition to other industries such as

finance, accounting for 3.91%. The average monthly income of the respondents of this survey is the commonly selected range of school students that is, the income group below 2000 yuan income, accounting for 38.86%; monthly income of 4001-6000 yuan followed, accounting for 23.38%, 2001-4000 yuan income accounted for 16.92%, and the audience of more than 8001 yuan accounted for 6.63%. According to the average monthly income of the respondents of this survey, it can be seen that the average monthly income level of the audience is mostly medium.

3. ANALYSIS OF THE CURRENT SITUATION OF NEWS DISSEMINATION IN THE DIGITAL AGE

3.1 Cognitive level

As shown in Figure 1, the proportion of short video news with a duration of less than 5 minutes is the highest among the respondents' preferred forms of news presentation, reflecting the fact that short video news as a new type of news content presentation has a better audience base. In the respondents' preference for news forms, only 34.01% are interested in traditional text news. Under the new Internet information dissemination pattern, short video, as a lightweight, mobile and fragmented information dissemination carrier, is highly compatible with the public's media use habits and information reception needs, and has begun to play an increasingly important role in news dissemination, becoming a common way of presenting and acquiring news, and also influencing the expression of news reports in terms of reporting form, narrative style and content source.
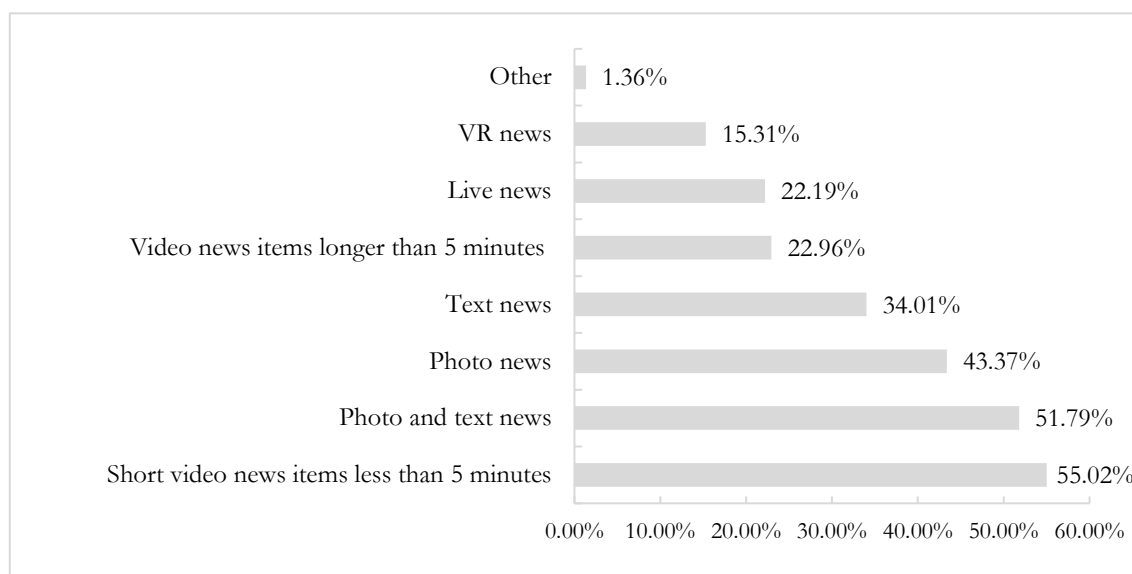

Figure 1: News form Tendency Degree

The results of the questionnaire survey (Figures 2 and 3) show that the news most frequently watched by the audience scored the highest among news with a duration of less than 30 seconds, followed by 31 seconds - 1 minute. Social news accounted for the highest proportion of the news types most frequently watched by the audience, and the selection of news topics released by the current media is consistent with the news topics of high audience concern, but the mainstream media still need to further strengthen their reporting in news selections such as economic news, education news, and sports news. The characteristics and modes of journalism that are different from the traditional ones are the result of the transformation of social, institutional, cultural and other environmental factors in the technological era. Under the current rich and diversified media ecology, the news and communication industry should show a new picture through various forms of fusion and integration.
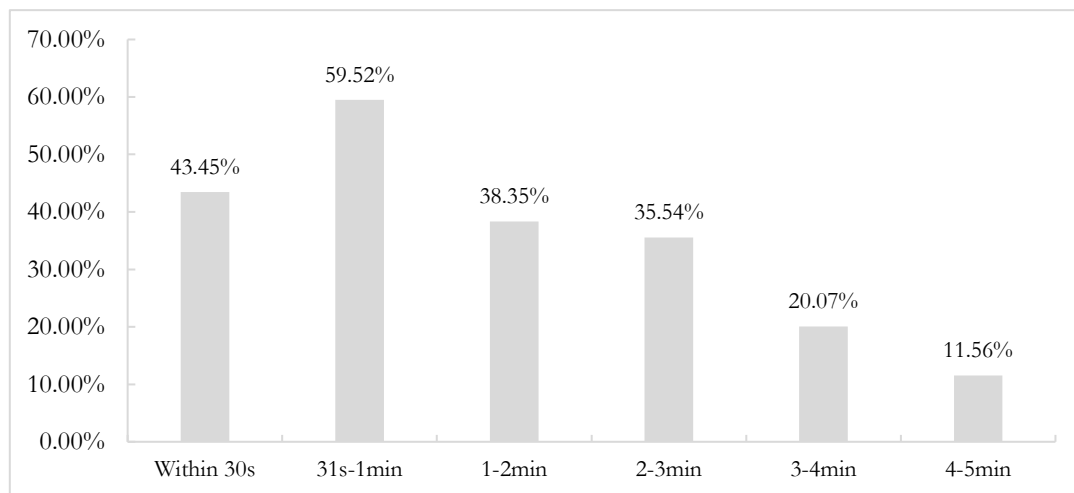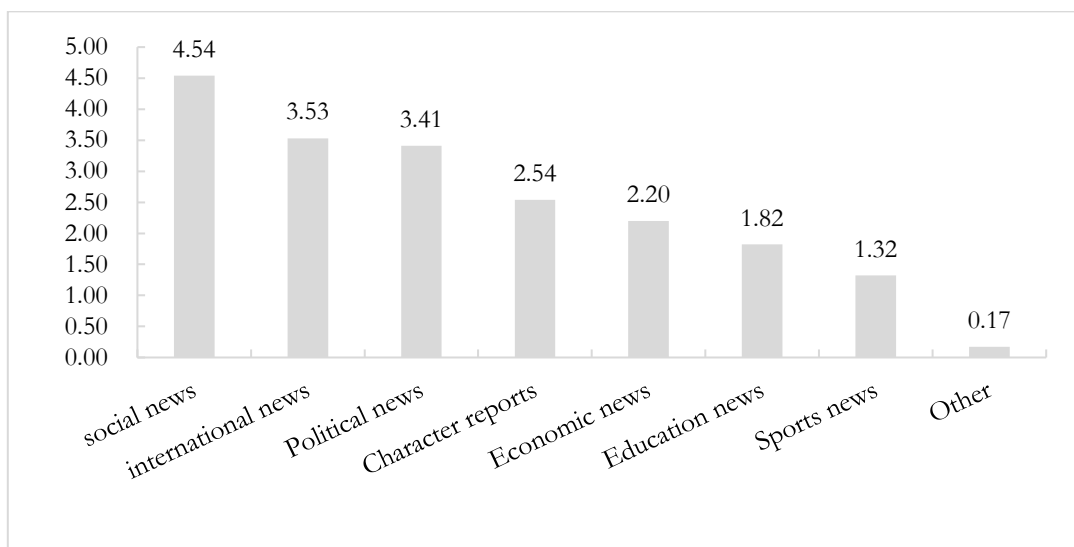

Figure 2: Duration of Frequent News Viewing

Figure 3: Types of Frequently Viewed News

3.2 Attitude Level

As can be seen in Figure 4, 49.22% of all respondents expressed acceptance and 19.80% expressed total acceptance of the emotions or feelings evoked by the news, which is much higher than total non-acceptance with 2.57% share and non-acceptance with 5.95% share.
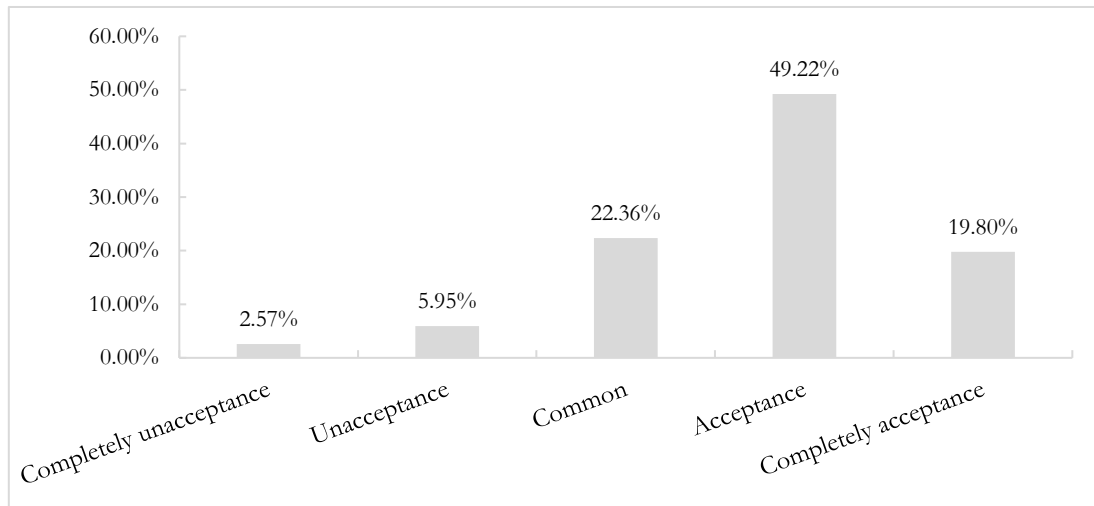

Figure 4: Degree of Influence by Media News

As can be seen from Figure 5, among the respondents' deficiencies in media news, the two aspects of content homogenization and incomplete presentation of events are the highest degree of care, respectively 3.68 and 3.7, followed by the belief that the quality of news coverage is not high with untimely updating, low clarity of pictures and videos, and rough production of a few options are relatively flat, respectively 3.56, 3.54, 3.49, and 3.48.
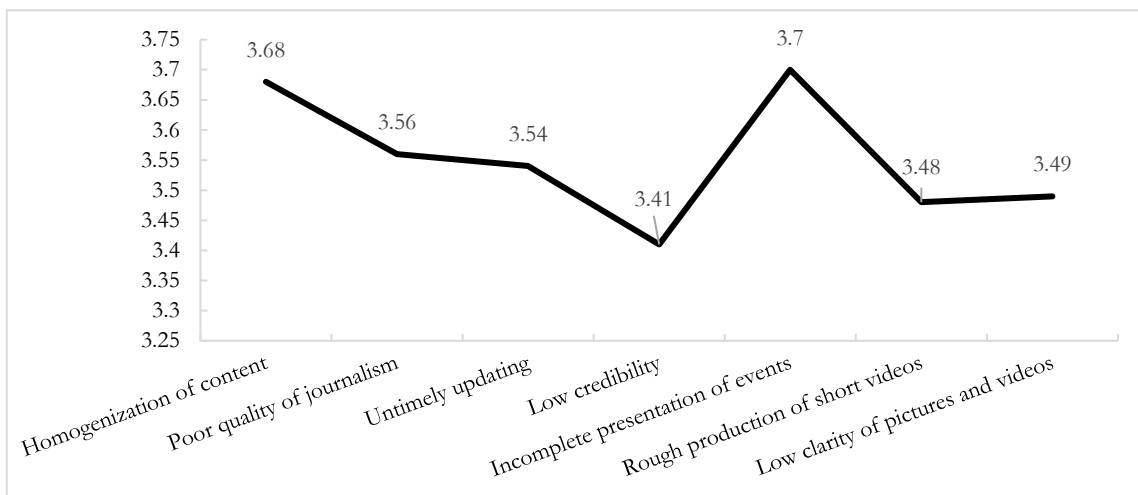

Figure 5: Deficiencies in Media Journalism

3.3 Behavioral Level

Through Figure 6, it is found that more than half of the respondents have a high viewing frequency, and the cumulative percentage of users who

choose to watch very frequently and more frequently reaches 60% of the number of respondents, and such users have a higher degree of activity and greater user stickiness; the percentage of users who watch less frequently and for a long time accounts for 31%, and such users do not have the habit of watching media news on a fixed basis, and the user stickiness is smaller.
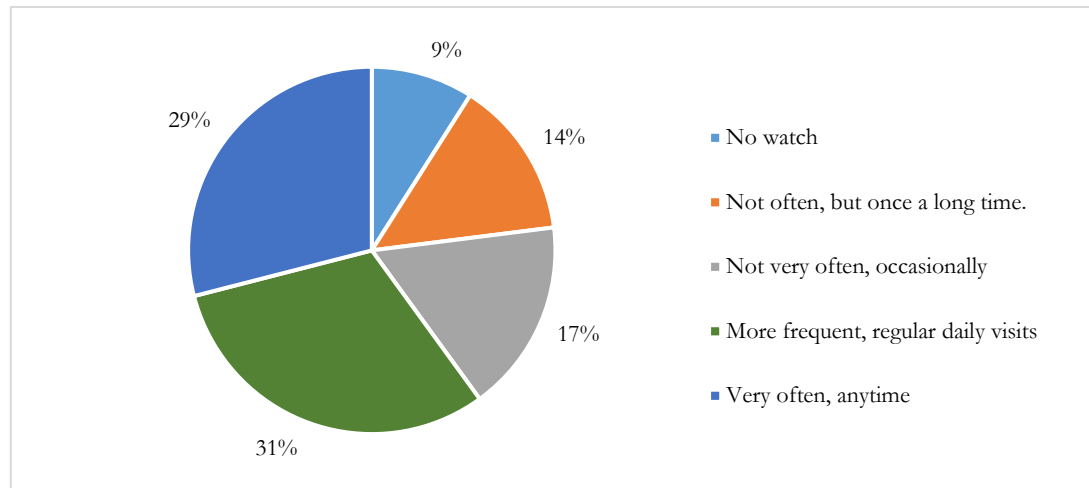

Figure 6: Frequency of Viewing Media News

4. CHALLENGES FACING NEWS DISSEMINATION IN THE DIGITAL AGE

4.1 Uneven Quality of Content

Content is king as one of the most familiar theories in the media industry, the meaning of which originally refers to the survival of the site lies in the quality of the site's content, the concept of which is placed in the current media communication in the Internet can still be used. The more centralized selection of topics and types of content can not meet the diversified needs of the audience for news and information, and the more homogeneous topics will also cause aesthetic fatigue of the audience, reducing the audience's loyalty and adhesion to the media. Currently, the media still takes the transmission of mainstream values as its first priority, and therefore presents the content characteristics of "propaganda" and "indoctrination". Such content characteristics and the traditional mass communication era of self-centered communication mode is less different, and the current Internet social platform information dissemination mode is more different, especially in the short-video platform of life, openness-oriented information dissemination environment, embodied in the user-centered Internet thinking, the dissemination mode has been changed from "the user looking for information" to "the user looking for information".

The way of communication has changed from "users looking for information" to "information matching users" product thinking. The digital era has made news dissemination easier and faster, but it has also led to some problems. News spreads extremely fast and sometimes irresponsibly, which tends to trigger panic and anxiety among the public. In addition, due to the problem of information overload, it is difficult for people to distinguish between true and false news, thus they are easily misled and influenced. The digital era has given rise to all kinds of V-Netizens and self-media, but this has also led to uneven media and high and low quality of practice. Some media tend to ignore the authenticity and objectivity of news in order to pursue clicks and attention, which not only affects the public's trust in news, but also poses a threat to social stability and development.

4.2 Lack of Innovation in Production Format

At present, the production form of many news programs is relatively single and lacks novelty and creativity. For example, some news programs still use the traditional broadcasting method, with the host or anchor as the dominant, through the text, pictures, video and other materials to deliver news information. Although this production form is classic, it is also easy to make the audience feel fatigue, lack of attraction and freshness. For the meeting news reports are generally more formulaic, the report form is dull, the content lacks novelty, the lack of news readability and must-read, no information about the recollection and leadership activities of the report too many did not report on the old way, did not attract readers to pay attention to the highlights. In the writing, organization, not to the importance of the matter to contact, not to guide the value of the length of the set, but to attend the meeting and activities of the leadership level to take and set the length; in the report on the visual, to the leadership concept is given priority to, and seldom from the readers, life point of view to write. Through the layout of the media in the new form of communication, the media itself is recognized in the form of short video news, but the traditional media is still using the "by-product" mode of operation, in the production of short video news there is also a pattern of problems. Although the short video user browsing terminal for vertical screen cell phone, but the video material to 16:9 and other horizontal mainstream playback format is dominated by the selection of such video as material edited to meet the short video platform playback requirements of the format, often appear picture quality degradation, black edge and other technical problems.

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4.3 Decline in the Influence of Traditional Media

Today's network era, the influence of traditional media has been challenged, traditional media on the network is no longer a representative with original information, each person and individual or organization can release data and information, and in the case of emergencies, the self-media performance is more prominent, rapid response, often released breaking news, through the text, pictures and video and other means to bring the most rapid reports. In front of such time-filled and three-dimensional reports, the status of traditional media has received a direct impact. We have to accept this gap and shortcomings, promote media integration, maintain the advantages of traditional media, while absorbing the advantages of online media. Paper media has a fixed mode and way of production which is unbreakable. Paper media in the development of many years, has its own complete process, such as editorial way, interview mode and so on. Although the portal in recent years the development of very rapid, influential, but we have to realize that the network media do not have the right to interview, but the paper media has a valuable right to interview, which determines the originality of the traditional media news.

4.4 Shortage of Technology and Talents

Today, the development of technologies such as big data, cloud computing and artificial intelligence has reconstructed the media ecology and brought new business models and revenue dividends to the media field. The responsibility of technology is also increasing in the deep integration of media. The lack of direction in news production often fails to achieve the expected communication effect due to the lack of innovative consciousness. Many city and county media in the construction of new media, just move the content on the PC terminal and mobile terminal, this low-level integration of old and new media, simply increase the platform and channels, or "two skins". In the era of all-media, the requirements for editorial staff are not only to be able to write, think and suffer, but also to understand technology and application. Some units in recent years, although the introduction of some of the new media editorial talent, they are highly educated, young, strong computer skills, but there is also the problem of short experience in the news industry, and some in the new media before entering the work of the traditional media work experience, news editorial ability is weak. Influenced by various factors, some media have difficulties in introducing high-level talents and losing excellent staff. Part of the media by the restrictions of the geographical living

environment, the existing editorial talent generally face the problem of transition, a few units have a platform without a team, there is a project no one to do the dilemma. Therefore, how to do a good job in the transformation of all-media talent training and training of relevant professionals is the most important thing in front of the units.

5. OPTIMIZATION SUGGESTIONS FOR THE NEWS INDUSTRY IN THE DIGITAL ERA

5.1 Multi-dimensional Enhancement of Content Quality

Quality content is the core of winning the attention of the audience, but also a necessary precondition for the continued development of the media in the new form of communication. And high-quality content should be based on a rich selection of content. Therefore, in order to further enhance the communication effect, it is necessary to be richer in subject matter. In addition to the dissemination of positive energy and mainstream values, in order to better fulfill the media's responsibility of monitoring and guiding public opinion, it is also necessary to increase the number of critical and supervisory news reports, and to balance the proportion of different reports, so as to prevent the proportion of emotionally-guided reports from being too high.

In terms of content categories, to increase the selection of economic, sports, cultural and other aspects of the content, only a rich selection of topics and innovative production concepts, in order to meet the diversified needs of the short video audience, to win the recognition of the audience. In terms of the content of the news itself, the mainstream media's "exclusive reports" are of more prominent value. However, in the context of the Internet, the access to information has become faster, and "exclusive reports" alone are not enough to widen the channel advantage between mainstream media and other media.

Therefore, it is necessary to conduct in-depth research in the selection of content and the perspective of the report, to explore the deep information. Such as digging out the reasons behind the incident, the subsequent results of the treatment, rather than just a stage of the report, in order to meet the audience's fragmentation needs at the same time, balanced with the completeness of the news, and adjust the length of the news according to the content of the main body of the report and the performance needs in order to deepen the "Exclusive News" to become the "Unique News". News".

5.2 Diversified and Innovative Product Formats

Vertical and detailed title settings can systematically divide the content and guide the audience to generate viewing behavior. In the homepage of mainstream media accounts, the headline style and narrative text that can quickly catch the audience's attention have a positive impact on the shaping of their own image. As a content producer, if you want to create attractive headlines, you need to firstly refine the content accurately and efficiently highlight the core of the information conveyed; keep it simple and concise, and use more grounded narrative techniques; pay attention to the current hot topics and use hot words to improve the comprehension of events. Utilizing the communication function of network media, network news focuses video, text, images and other media together, greatly expanding the information scope of news reports. Diversified news dissemination challenges readers' traditional reading methods. Traditional print media require readers to read from top to bottom in a gradual manner, the scope of the reader's reading has certain limitations, while the news dissemination mode in the Internet era requires readers to read in a more casual manner, the network reading is fast, jumping, and can be a glimpse of ten lines, which consists of information elements are very much, including images, colors, text and other content of the multimedia form. Readers can choose to browse the news according to their own preferences, online text reading, online video viewing, or even chained to any related reports to go more in-depth attention and hold the trend of a news event. Short time frequency as a new means of communication, the traditional media can also use more of this form to increase attention. And short videos need to rely more on the editing mode in terms of novelty. Short video, as its name suggests, is characterized by short time, which requires the producer to speed up the editing rhythm within a limited time, thus conveying more practical information. For the phenomenon of simply using pictures as short video news content, it can be presented dynamically through data visualization and other means, effectively enriching the video sensory experience of many users.

5.3 Establishing Two-way Interaction and Emotional Resonance

The expansion of the communication field has enriched the instant interaction between the audience and the users by browsing the media information of their own choice and giving them likes, comments and retweets, etc. Therefore, it is urgent for the traditional media to establish two-way interaction between them and the users. In the past, limited by media technology and the fixed mode of communication content and

mode of communication, the mainstream media have established authority and influence among the audience, resulting in almost one-way information transmission in the communication agenda set by traditional media. Therefore, when producing news, the media should stimulate the interaction of users through guiding briefings, headlines or screen content prompts. In addition, positive interaction with the audience can play a positive role for the media to understand the effect of news dissemination. First, through the comments on the news, to understand the audience's viewing preferences, which is conducive to the media for different groups and different topics of the news content to formulate a form that meets the expectations of the audience; second, through the comments on the news content, to guide the audience to correctly understand the content of the news to be conveyed, correcting the inaccurate interpretation of the completeness of short-video news; third, through the social platforms, it is easy to see that after the content publishing body replies to the comments, the audience often "flipped" the content. "Thirdly, through the observation of social platforms, it is not difficult to see that, after the content release subject replies to the comments, the audience often to "be flipped" joy to show the release of the content release subject's favorite, the media as a representative of the authoritative information release subject, can through the comments to maintain good audience The media, as the representative of authoritative information publishers, can maintain a good audience base through comments, so that the audience has a sense of belonging.

5.4 Strengthening Technical Support and Talent Training

In the era of information data, universities are also changing the training form of journalism students, trying to match the media characteristics in the era of big data, starting from data analysis and processing, new media career planning, etc., and trying to cultivate "cross-border journalism talents", and cultivate journalism students to establish a big data mindset and have new media skills, so as to meet the demand for news media personnel in the data era. In order to adapt to the demand for news media people in the data era (Fenton, 2009b). To cultivate new media talents, it is necessary to jump out of the traditional way of cultivating the same media, and on the basis of the traditional disciplines of gathering, writing and editing, we should increase the educational links and subjects such as data screening, processing and summarizing, and set up a "new media laboratory" to integrate the journalism education model with information technology, public relations and other disciplines, so as to provide students with the opportunity to learn how to master data journalism technology,

new media operation, and how to use new media to promote the development of new media (Fenton, 2009a). The integration of journalism education model with information technology, public relations and other disciplines provides a platform for students to learn the mastery of data journalism technology and new media operation methods, and allows students to transform data theory into practical journalism skills through regular training. Specifically, the school can dock with the news media, through inviting lectures from industry professionals, providing internships, and exchanging and sharing information resources, etc., to help students get in touch with the new media in advance, and to understand and master the data characteristics and special technical means of the new media (Klinenberg, 2015). Teachers and teachers should be effectively strengthened. In the face of the actual situation, colleges and universities can introduce senior media practitioners into the classroom, directly involved in classroom teaching, to provide students with vivid and fresh first-hand news practice teaching content. This can effectively change the philosophy and teaching mode of these journalism faculties, which is also very beneficial to the cultivation of talents.

6. CONCLUSION

The study found that the current news industry has problems such as uneven content quality, lack of innovation in production forms, reduced influence of traditional media, and insufficient technology and talents. The news industry should be based on rich content selection, pay attention to current hot topics, dig deep information, and gain higher attention. Traditional media should establish its two-way interaction with users, understand the audience's favorites, and develop news that meets the audience's expectations. Colleges and universities should effectively strengthen the construction of faculty, and strive to cultivate "cross-border journalism talents". Under the Internet era, diversified news dissemination is undoubtedly the mainstream trend of the entire new media environment, and this paper provides a reference for the change of news dissemination in the digital era.

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